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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,211	07/24/2001	Michael J. Chaloner	10004955-1	6430

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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EXAMINER

BROWN, VERNAL U

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. .

09/912,211

Applicant(s)

CHALONER ET AL.

Examiner

Vernal U Brown

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-18 and 20-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-18 and 20-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2635

DETAILED ACTION

This action is responsive to communication filed on February 18, 2004.

Response to Amendment

The examiner has acknowledged the amended claims 16, 17, the cancellation of claims 1-15, and 19, and the addition of claims 23-50.

Response to Arguments

Applicant's arguments with respect to claims 16-18 and 20-22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 16-18, 20-22 are rejected under 35 U.S.C. 102(e) as being anticipated by

Lastinger U.S Patent 6104311.

Art Unit: 2635

Regarding claims 16-17, Lastinger teaches an object (tag) presence detection system (col. 8 lines 33-40), the system comprising at least one region of interest (area in which the tag is located);

object detection equipment (32) disposed conveniently to said at least one region of interest, wherein said object detection equipment comprises at least a radio frequency transmitters evidenced by the reader transmitting RF signal to the radio frequency tag (col. 7 lines 29-32). Lastinger teaches a set of objects for detection by said object detection equipment (col. 8 line 32-col. 9 line 4) and at least one antenna (24) disposed on each object (tag) of said set of objects for uniquely identifying each said object of said set of objects to said object detection equipment (col. 11 line 65-col. 12 line 8).

Regarding claim 18, Lastinger teaches the tag receive radio frequency signal (col. 7 lines 29-32), therefore the tag is a radio frequency receiver.

Regarding claim 20, Lastinger teaches a system for detecting object presence (col. 8 lines 33-40), the system comprising: means for transmitting RF (radio frequency) energy towards objects in a region of interest; means for receiving RIF energy from said objects in said region of interest (col. 7 lines 29-32); means for generating at least one resonant frequency to represent an object population in said region of interest (col. 11 line 65-col. 12 line 10). Lastinger teaches the receive circuitry of the tag resonates and generate a response with a frequency based on the resonant circuit (col. 12 lines 14-20) and altering the received energy with the resonant frequency by changing the antenna pattern (col. 12 lines 19-22).

Regarding claim 21, Lastinger teaches means (programming means) for identifying said object population based on said analyzed altered received RF energy (col. 8 line 62 -col. 9 line 4).

Regarding claim 22, Lastinger teaches means for generating comprising at least one distinctively dimensioned antenna on each object of said object population (col. 12 lines 19-22).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23-29, 32-47, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418.

Regarding claims 23 and 29, Bowers et al. teaches a container (32) comprising: object presence detection equipment (100) internal to said container (figure 6), said equipment comprising at least one transmitter (102) of transmitted signal energy and at least one receiver (104) of received signal energy (figure 3); a set of objects (22) for object presence detection internal to said container (col. 12 lines 62-67). Bowers et al. also teaches a container wall substantially surrounding the objects presence detection equipment (figure 6) and an object of the set of objects is operable to modify the transmitted signal energy of a selected frequency to

Art Unit: 2635

generate the received signal energy of the selected frequency by resonating at the resonant frequency of the tag (col. 8 lines 36-43). Bowers et al. is however silent on teaching shielding the interior of the container from extraneous external signals. Francis et al. in an art related object tracking system teaches the use of electromagnetic shielding to prevent reading of the by extraneous source (col. 9 lines 49-65).

It would have been obvious to one of ordinary skill in the art to shield the interior of the container from extraneous external signals in Bowers et al. as evidenced by Francis et al. because Bowers et al. suggests interrogating objects in a container and Francis et al. teaches the use of electromagnetic shielding to prevent reading of the by extraneous source and further limit the interference from other electromagnetic sources.

Regarding claims 24, 34, and 39, Bowers et al. teaches the set of objects comprises a tape cartridge (col. 6 lines 45-49).

Regarding claims 25-26 and 35, Bowers et al. teaches arranging objects in a linear array and plurality of arrays (figure 9).

Regarding claim 27, Bowers et al. teaches an enclosed area 10 having plurality of arrays of objects (20, 22) as shown in figure 1 and the interrogator (figure 3) having associated transmitters (102), receivers (104), analyzing circuitry (108) and processing equipment (26).

Regarding claims 28, 36, 40, and 46 Bowers et al. teaches the transmitted and said received signal energy is radio frequency (col. 8 lines 42-43).

Regarding claims 32 and 50, Bowers et al. teaches the transmitter and the receiver are combined into one transceiver (figure 3).

Regarding claims 33 and 38, Bowers et al. teaches a method for identifying objects within a set of objects in a container (col. 12 lines 50-65), said method comprising: transmitting a signal within said container (col. 12 lines 63-65); modifying said transmitted signal at a selected frequency by at least one object of said set of objects by resonating at a frequency (col. 8 lines 36-43). Bowers et al. also teaches receiving said modified signal within the container; analyzing and processing said received signal (col. 12 line 62-68) but is however silent on teaching shielding the interior of said container from extraneous external signals. Francis et al. in an art related object tracking system teaches the use of electromagnetic shielding to prevent reading of the by extraneous source (col. 9 lines 49-65).

It would have been obvious to one of ordinary skill in the art to shield the interior of the container from extraneous external signals in Bowers et al. as evidenced by Francis et al. because Bowers et al. suggests interrogating objects in a container and Francis et al. teaches the use of electromagnetic shielding to prevent reading of the by extraneous source and further limit the interference from other electromagnetic sources.

Regarding claims 37, 41 and 47, Bowers teaches means for modifying comprises resonating at the selected frequency (col. 8 lines 36-43).

Regarding claim 42, Bowers et al. teaches a tape storage container (32) comprising: object presence detection equipment (100) internal to said container, said equipment comprising

Art Unit: 2635

at least one transmitter (102) of transmitted signal energy and at least one receiver (104) of received signal energy (figure 3); a plurality of tape cartridges (22) (col. 6 lines 66-col. 7 line 5) for object presence detection internal to said container (col. 7 lines 32-40), such that a tape cartridge of said plurality of tape cartridges is operable to modify said transmitted signal energy of a selected frequency to generate said received signal energy of said selected frequency (col. 8 lines 35-43). Bowers also teaches the outer body substantially surrounding said object presence detection equipment and said plurality of tape cartridges (figure 6) but is silent on teaching metallic outer body operable to shield said equipment and said tape cartridges from extraneous external signals. Francis et al. in an art related object tracking system teaches the use of electromagnetic shielding to prevent reading of the by extraneous source (col. 9 lines 49-65).

It would have been obvious to one of ordinary skill in the art to shield the interior of the container from extraneous external signals in Bowers et al. as evidenced by Francis et al. because Bowers et al. suggests interrogating objects in a container and Francis et al. teaches the use of electromagnetic shielding (metallic) to prevent reading of the by extraneous source and further limit the interference from other electromagnetic sources.

Regarding claim 43-44, Bowers et al. teaches arranging objects in a linear array and plurality of arrays (figure 9).

Regarding claim 45, Bowers et al. teaches an enclosed area 10 having plurality of arrays of objects (20, 22) as shown in figure 1 and the interrogator (figure 3) having associated transmitters (102), receivers (104), analyzing circuitry (108) and processing equipment (26).

Claims 30 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418 and further in view of Lastinger U.S Patent 6104311.

Regarding claims 30 and 48, Bowers et al. in view of Francis et al. teaches the tag having a resonant circuit (col. 8 lines 40-42) but is silent in teaching resonating is enhanced by variable resonant material by adjusting the length of the resonating material. Lastinger in an art related tag identification system teaches changing the resonating properties by adjusting the length of the resonating material (col. 8 lines 16-18).

It would have been obvious to one of ordinary skill in the art to enhanced the resonating capability of the tag by adjusting the length of the resonating material in Bowers et al. in view of Francis et al. as evidenced by Lastinger because Bowers et al. in view of Francis et al. suggests the tag having a resonant circuit and Lastinger teaches changing the resonating properties by adjusting the length of the resonating material in order to change the resonant frequency.

Claims 31 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowers et al. U.S Patent 5963134 in view of Francis et al. U.S Patent 6600418 and further in view of Greene et al. U.S Patent 5581257.

Regarding claims 31 and 49, Bowers et al. in view of Francis et al. teaches the tag resonating at a resonant frequency (col. 8 lines 40-42) but is silent in teaching the objects resonate at the same frequency. Greene et al. in an art related radio frequency identification

Art Unit: 2635

system teaches radio frequency tags having the same resonant frequency (col. 6 lines 27-29) in order to provide the same information.

It would have been obvious to one of ordinary skill in the art for the objects to resonate at the same frequency in Bowers et al. in view of Francis et al. as evidenced by Greene et al. because Bowers et al. in view of Francis et al. suggests the tag resonating at a resonant frequency and adjusting controlling the resonant frequency and Greene et al. teaches radio frequency identification system teaches radio frequency tags having the same resonant frequency in order to provide the same information.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vernal U Brown whose telephone number is 703-305-3864. The examiner can normally be reached on M-Th, 8:30 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2635

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vernal Brown
April 27, 2004



BRIAN ZIMMERMAN
PRIMARY EXAMINER